

REMARKS:

The claims in the application are 1-18, 20 and Claim 21 added by the present Amendment.

Favorable reconsideration of the application as amended is respectfully requested.

Claims 1, 3, and 9-11 have been amended to correct minor informalities.

A Petition to withdraw finality of the Office Action mailed February 25, 2003 had been filed with the Patent and Trademark Office on May 1, 2003. As of today's date, no Decision on this Petition has been received by the office of the undersigned. In the interests of expediting prosecution, an Amendment in response to the final Office Action is hereby submitted. However, Applicants reserve the right to prepare and file a further Amendment should finality of the Office Action be withdrawn.

Claims 1-18 and 20 have been rejected under 35 U.S.C. §103 as obvious over U.S. Patent No. 6,387, 523 to Bunyan et al in view of U.S. Patent No. 3,470,928 to Schwartz in paragraph 3 of the Office Action, it being asserted by the Examiner that the disclosures of U.S. Pat. Nos. 6,248,393 and 6,387,523 are identical. In any event, it is respectfully submitted that the invention recited in all claims pending herein is patentable over this combination of the applied art, for the following reasons

The present invention provides an electrically conductive fabric which maintains flexibility and, at the same time, provides high EMI shielding performance over a broadband. The performance of the inventive fabric material has been

documented in the comparative testing presented in Table 1 of the present application. In this regard, Claim 21 introduced herein finds explicit support in the testing documented in Table 1 on page 17.

These and other advantages are explicitly attained by the inventive fabric recited in the claims and which is directed to, among other features, a multifilament yarn composed of a plurality of flat thermoplastic single filaments and a metal coating layer formed on the surface thereof. In other words, each of the single filaments in the multifilament yarn is a flat, thermoplastic single filament. Furthermore, the multifilament yarn itself, is preferably flat as defined, e.g., in Claim 4. Moreover, the multifilament yarn can be woven as recited in Claim 6, with the warp and weft having different surface occupancy ratios.

Attention is again respectfully called to the comparative testing presented in the present application and which documents that using a multifilament yarn having plural flat single filaments, provides a uniform and flexible conductive fabric also possessing high EMI shielding performance over a wide frequency range. The features of the presently claimed invention together with the accompanying advantages attained thereby are not taught or suggested by the applied art, even in combination, for the following reasons.

Firstly, Bunyan et al fails to disclose

(i) a multifilament yarn composed of single thermoplastic filaments with each filament being flat;

(ii) the multifilament yarn itself, being flat; or

(iii) the woven fabric being composed of warp and weft yarn having different surface occupancy ratios.

These deficiencies in Bunyan et al. have even been acknowledged in the Office Action (please see, e.g., page 3, first full paragraph).

While Schwartz might disclose use of flat polypropylene or polyolefin yarn, it is not easy to simply substitute the yarn used in Bunyan et al with the flat polypropylene yarn disclosed in Schwartz because polypropylene or polyolefin is not mentioned as constituting a suitable shielding fabric in Bunyan et al. It is noted Bunyan et al was filed over 30 years after Schwartz was patented, yet Bunyan et al makes no mention or recognition of possibly substituting yarn of the type disclosed in Schwartz. This, in and of itself, is evidence of the unobvious nature of the inventive fabric being claimed herein.

Furthermore, Schwartz fails to disclose use of multifilament yarn composed of flat single filaments. More particularly, the disclosure at column 3, lines 5-8 of Schwartz, namely

The yarns preferably used for this purpose are ribbon-like synthetic plastic, monofilament or multifilament yarns having a rectangular cross-section...

suggests only a flat yarn composed of either conventional monofilament in a round cross-section or multifilaments each of which is composed of a conventional single filament in a round cross-section. In other words, Schwartz fails to suggest a

multifilament yarn composed of single filaments each having a rectangular cross-section.


The rectangular yarn of Schwartz is intended for use in the selvage portion of a conventional fabric which is composed of different materials, to improve bonding property, unlike the inventive fabric which is explicitly designed for EMI shielding. Bunyan et al do not require any such improvement in the bonding property of the selvage portion of the fabric.

Accordingly, it is not even logical to combine the teachings of Bunyan et al with Schwartz, to begin with. As noted above, Bunyan et al was filed over 30 years after Schwartz issued, yet Bunyan et al fail to contain even the slightest suggestion of using a fabric taught in Schwartz. The only suggestion of providing the explicitly claimed fabric can be found in the present application; accordingly, any possible combination of Bunyan et al. with Schwartz can only be fashioned in light of the invention disclosure herein, which constitutes improper hindsight reconstruction of the claimed invention. Moreover, even if Bunyan et al and Schwartz could be logically combined, then the features of the claimed invention together with the accompanying advantages would still not be suggested. Therefore, even if one skilled in the art considered Bunyan et al together with Schwartz, that skilled person would clearly not be lead to practicing the claimed invention.

Accordingly, in view of the forgoing amendment and accompanying remarks, it is respectfully submitted the present application is in condition for allowance. Should the Examiner have any questions, then it is respectfully requested the undersigned attorney be contacted at the earliest convenience to discuss the present application. A Petition for an automatic one month extension of time under 37 C.F.R. §1.136(a) is enclosed in triplicate together with the requisite petition fee.

Early favorable action is earnestly solicited.

Respectfully submitted,


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